



## Keynote Address: Commons and Code

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## Keynote Address: Commons and Code

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## Keynote Address: Commons and Code

Lawrence Lessig\*

I want to take an idea from the North and an idea from the South, and see how well these two ideas might hang together. An idea from the North—here at Fordham Law School—and an idea from the South, way down at NYU Law School and ask, how much can we make these two ideas converge?

First from the South: we live in a property obsessed era—a time when we have come to believe that all progress, at root, comes from it's alignment with property. This is not a Southern idea—this is a distinctly Mid-Western, call it Chicago idea. But it is an idea that has overwhelmed our time. We ride high on a post-cold war triumph, convinced that the ills of communism would be remedied if only they privatized everything; never pausing to notice that, when they did, the problems were not.

But there is a competing tradition, even within our own tradition, not against property, but for a certain balance in property. There must be private property, no doubt; and in some cases there should also be state property. But the strong balance to private property is not state property; the strong balance is the Commons. This is the idea we are being reminded of from the South, by NYU Law Professor Yochai Benkler in particular, but of course others as well.<sup>1</sup> We are being reminded of the place that the Commons has

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\* Jack and Lillian Berkman Professor of Entrepreneurial Studies, Harvard Law School. A version of this Address was delivered on February 9, 1999 at the *Fordham Intellectual Property, Media & Entertainment Law Journal's* Seventh Annual Symposium: First Amendment and the Media at Fordham University School of Law. Footnotes were supplied by the *Journal*.

1. Yochai Benkler is an Assistant Professor of Law at New York University School of Law. See Yochai Benkler, *Overcoming Agoraphobia: Building the Commons of the Digitally Networked Environment*, 11 HARV. J.L. & TECH. 287, 360 (1998). Professor Benkler reveals:

In [Garret Hardin's] classic statement, the "tragedy of the commons" is a situa-

had in our past, and of the urgency that we consider its presence in our future.

The Commons—is a part of the real world here and now, that we all enjoy without the permission of anyone. Central Park is a Commons: an extraordinary resource of peacefulness in the center of a city that is anything but; an escape and refuge, that anyone can take and use without the permission of anyone else.

The public streets are a Commons: on no one's schedule but your own, you enter the public streets, and go any direction you wish. You can turn off of Broadway onto Fifty-second at any time, without a certificate or authorization from the government.

Fermat's last theorem<sup>2</sup> is a Commons: a challenge that anyone could pick up; a challenge that Andrew Wiles picked up, and in the early 1990s, he thought he had solved it until he saw it on the Internet.<sup>3</sup> And people on the Net themselves picked it up; and played with it, and showed Wiles that he was wrong; and then they played with it some more, and then suggested how it could be made right, and he then made it right, and after 350 years, the proof was complete.<sup>4</sup>

The Internet is a Commons: the space anyone can enter and take what she finds without the permission of a librarian or a prom-

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tion where a resource is shared without rules to allocate its usage. Under such conditions, every individual with access to the resource internalizes the full benefit of using whatever part of the resource the individual is capable of using, but shares the costs of depletion caused by his or her use with all other potential users of the resource. Similarly, the benefits of an individual's investment in maintenance of the resource are shared with all other potential users, while the costs of such investments are not. The individual's private cost-benefit analysis therefore leads all users of the commons to make rational personal choices that lead them, with tragic determinacy, to lose the resource.

*Id.* (citations omitted); see also Garret Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243 (1968), reprinted in PERSPECTIVES ON PROPERTY LAW 132 (Robert C. Ellickson et al. eds., 2d ed. 1995).

2. See Lawrence Lessig, Open Code and Open Societies: Values of Internet Governance, 1999 Sibley Lecture, University of Georgia 2 (Feb. 16, 1999) (transcript available at <<http://cyber.harvard.edu/works/lessig/kent.pdf>>) [hereinafter Lessig, Open Code]. Pierre de Fermat "scribbled" his "obscure theorem ( $X^n + Y^n = Z^n$  has no non-zero integer solutions for  $N > 2$ )."*Id.*

3. See *id.*

4. See *id.*

ise to pay. The Net is built on a Commons—the code of the world wide web, HTML<sup>5</sup> is a computer language that lays itself open for anyone to see—to see and to steal, and to use as one wants. If you like a web page, then all major browsers permit you to reveal its source, download it, and change it as you wish. It is out there for the taking, and what you take leaves as much for me as there was before.

Open source software is a commons: the source code of at least part of, Linux, for example, lies available for anyone to take, to use, to improve, to advance.<sup>6</sup> No permission is necessary; no authorization may be required.

These examples of the Commons that we all know give us a sense of what the essence of a commons is. The point is not that there is no regulation of access or use. A park can be closed and a street is sometimes. Ordinary, low-level, content-and-viewpoint-neutral type regulations are allowed. But what is not allowed is that access to this property, the access to the Commons, be conditioned upon the will of anyone else. If a Commons is not open for others to take without permission of someone, it has lost the essence of being a Commons.

I list in tedious detail these examples of a Commons, because our most likely association with the idea of a Commons is with the idea of a tragedy. The “Tragedy of the Commons”—another idea given to us from the South—is the lesson we are most likely to remember when we think about the idea of a Commons.<sup>7</sup> The problem with a Commons is that there is no incentive for people to use it properly. Create a commons, and people will overgraze it. The Commons cannot sustain itself; it, like a tragedy, is destined to die some horrible death. And hence, rather than surrounding ourselves with these horrible deaths, why not simply move quickly to a world where tragedy is not common? What would it be—the com-

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5. See April M. Major, Copyright Law Tackles Yet Another Challenge: The Electronic Frontier of the World Wide Web, 24 RUTGERS COMPUTER & TECH. L.J. 75, 80 (1998). HTML, or Hypertext Markup Language, refers to the language in which Web documents are written. See *id.*

6. See Lessig, *Open Code*, *supra* note 2, at 6–7 (discussing the growth of the Linux Operating System).

7. See Benkler, *supra* note 1, at 360.

edy of private property, rather than the “Tragedy of the Commons.”<sup>8</sup>

But careless thought here is likely to carry this notion of tragedy too far. For again, if Commons face such an inevitable tragedy, how is it that we have so many of them around us? If tragedy is its destiny, how is it that parks and Linux can so dramatically flourish as they do?

I do not want to answer that question. Alas, it is too hard for me. But I do want to raise the question that Benkler<sup>9</sup> types are increasingly pushing. Can we imagine a world in real space where the commons is taken away?<sup>10</sup>

Just think about the details of this world for a moment. Benkler asks, what if the city decided that sidewalks are a public resource that it could auction to raise cash.<sup>11</sup> Everyone would have a right to the sidewalk just at the entrance of their house, but all other access rights to sidewalks would be auctioned to the highest bidder. It is hard to imagine, I know, but leap with me a bit here. You might have the right to use Fifth Avenue, or Bleecker, but you would not have the right to use Wall Street. Or you might have the

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8. *See id.*

9. *See supra* note 1 and accompanying text.

10. *See* Benkler, *supra* note 1, at 360. The absence of commons is a result of the “Tragedy of the Commons.” *Id.* Professor Benkler, addressing the tragedy of the commons concerning wireless communications, opines:

It is important to realize that this solution to the tragedy of the commons problem does not rely on the elimination of excess demand for transmissions over the supply of frequency/time/power units available for transmission. It does not, in other words, suggest or rely upon the notion that spectrum sharing will eliminate spectrum scarcity. It suggests, instead, that just as property rules can bring into play the incentives of spectrum owners to maximize the value of their spectrum, spectrum-sharing rules can bring into play the incentives of equipment manufacturers to optimize the use of spectrum by their devices. . . . What is important from the perspective of the tragedy of the commons objection is that the tragedy can be resolved within the framework of the equipment market, and does not require a shift to the spectrum market. Assuming the development of appropriate spectrum-sharing rules and protocols, and in the presence of an equipment market to reward investment in more efficient devices, the absence of a property system in spectrum should not result in a tragedy of the commons.

*Id.* at 361-62.

11. *See* Benkler, *supra* note 1, at 361.

right to Wall Street in the morning, but not in the evening. Or Bleecker on the weekends, but not during the week.

Whatever rights you have, however, are rights you have secured. For the key idea here is that you have access to the public streets only where you have secured permission for access. You buy permissions, like you used to buy E tickets at Disney World to use different parts of the public streets. Or, we could imagine permission being licensed by the state—allocated according to some view in the public interest, or to some idea about how the public might be best served. In either case, the core is the same. Access is granted, not guaranteed. One gets access only with permission of someone else.

Now, this would be an odd world. Perhaps it would be a wealthy world, a world without deficits, for one imagines the state would get lots of money from these auctions. But it would be a world wholly foreign to the world we know now. So foreign, and so impossible to imagine creating, that it is easy for us simply to ignore the hypo. Come down, Professor Benkler, you are living in the clouds.

Enter our idea from the North. At a conference at Emory (I know, that is still the South, but I will get back quite soon) a then-assistant professor from Fordham, Joel Reidenberg, told the audience about a new kind of regulator—a new type of regulation, that was both more efficient and more pervasive than government.<sup>12</sup> He called this regulator *Lex Informatica*, but when I heard it I could not spell “Informatica,” so I called it simply “Code.”<sup>13</sup>

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12. See Joel R. Reidenberg, *Governing Networks and Cyberspace Rule-Making*, 45 EMORY L.J. 911, 928 (1996) [hereinafter Reidenberg, *Governing Networks*]. Professor Reidenberg indicates:

The overlap of interests between the physical world and the virtual world suggests a governance model that contains distinct rules for the separation of powers. Territorial borders will retain an important role in structuring overlaps between network boundaries and state jurisdictions. Principles of federalism offer a valuable lesson for the relationship between territorial and cyberspace. Just as *Lex Mercatoria* did not displace the law of the situs of trade fairs, a new *Lex Informatica* suggests that sovereign states should only act within particular spheres of influence.

*Id.*

13. See Joel R. Reidenberg, *Lex Informatica: The Formulation of Information Pol-*

The idea behind *Lex Informatica*, or Code, is this: what makes cyberspace so different is that it is constituted by laws of nature that we write. What defines the experience that cyberspace is a set of instructions written into code that we or, more precisely, code-writers, author. This Code sets the rules of this space; it regulates behavior in this space; it determines what is possible in the space and what is not possible. And as we look to this Code maturing, Reidenberg rightly saw that this Code would become its own type of law. That we could define life in cyberspace as we wanted—with privacy or without; with anonymity or without; with universal access or without; with the right to speak freely and publish freely, or without. We could write these freedoms into the code of cyberspace itself. Code would then regulate life there. And the regulation through code, Reidenberg called *Lex Informatica*.<sup>14</sup>

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*icy Rules Through Technology*, 76 TEX. L. REV. 553, 570 (1998) [hereinafter Reidenberg, *Lex Informatica*]. Professor Reidenberg reveals:

During the middle ages, itinerant merchants traveling across Europe to trade at fairs, markets, and sea ports needed common ground rules to create trust and confidence for robust international trade. The differences among local, feudal, royal, and ecclesiastical law provided a significant degree of uncertainty and difficulty for merchants. Custom and practices evolved into a distinct body of law known as the “Lex Mercatoria,” which was independent of local sovereign rules and assured commercial participants of basic fairness in their relationships. In the era of network and communications technologies, participants traveling on information infrastructures confront an unstable and uncertain environment of multiple governing laws, changing national rules, and conflicting regulations. For the information infrastructure, default ground rules are just as essential for participants in the Information Society as Lex Mercatoria was to merchants hundreds of years ago. . . . Historically, law and government regulation have established default rules for information policy, including constitutional rules on freedom of expression and statutory rights of ownership of information. . . . [F]or network environments and the Information Society, however, law and government regulation are not the only source of rule-making. Technological capabilities and system design choices impose rules on participants. The creation and implementation of information policy are embedded in network designs and standards as well as in system configurations. . . . [T]he set of rules for information flows imposed by technology and communication networks form a “Lex Informatica” that policymakers must understand, consciously recognize, and encourage.

*Id.* at 553-55 (citations omitted).

14. See *id.* at 571. Lex Informatica has analogs for the key elements of a legal regime:

Like a legal regime, Lex Informatica offers both customization of rules and in-



Now, it is almost four years since Reidenberg first started talking about this form of law, but we are just on the cusp when others can begin to get the point he saw then.<sup>15</sup> For as the code of cyberspace is maturing, we are beginning to see just how radically different the world can be given different architectures for this code. And we are just beginning to see how important it will be that we take a hand in the construction, for there is any number of worlds that this great convergence could create. We should be certain that the world it creates is a world we want.

I want to think about this question of *Lex Informatica* in relation to this ideal of the Commons. For when we put these two ideas together—the idea of the Commons and this notion of a world built through code—we will see that Benkler’s impossibility.<sup>16</sup> The impossibility of imagining a world without the Commons, is Reidenberg’s reality—the reality of a law that could define the Commons away as easily as it could define the Commons into existence. We will see that the future of cyberspace could either be a world with a Commons or a world without a Commons.<sup>17</sup> And it is important that we choose which world cyberspace will become.

Let me put my cards on the table here. I am wildly in Benkler’s camp. I think that the Commons is a critical feature of a well functioning liberal society.<sup>18</sup> And I am also wildly under Rei-

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alienable rules. Customization for Lex Informatica occurs through technological configurations. For example, Internet browsers such as Netscape contain log files that record the user’s web traffic patterns. This protocol establishes a default rule for the collection of personal data that a user can override by altering file attributes or by disabling the log feature. As with legal regulation, these customizations through reconfigurations are only possible if the architectural standards support the deviations. In the case of log files for Internet use, reconfigurations can only be effective if the logging feature is designed to collect and store the data on a user’s local disk drive. If the information is collected and stored directly by the Internet service provider, the user will not have the capability to override the default rule. Lex Informatica can thus have substantive inalienable rules as a result of architectural decisions.

*Id.* at 571-72 (citations omitted).

15. See Reidenberg, *Governing Networks*, *supra* note 12, at 929.

16. See Benkler, *supra* note 1, at 360.

17. See Reidenberg, *Lex Informatica*, *supra* note 13, at 570; *see also*, Benkler, *supra* note 1, at 360.

18. See Benkler, *supra* note 1, at 361.

denberg's influence. I think that the threat to the Commons in a world constituted by Code is fundamental. So I want to sketch here just two arguments, and one hint, about how the Commons seriously might interact with the culture that is emerging on the Net. These two arguments, are built on the topic of the first panel, free speech, and hints to the topic of the second—something called antitrust.

There are two places where the convergence of media in cyberspace presents problems for this intersection of the commons and code. One is in the context of intellectual property; the second is in the context of broadcasting, or spectrum allocation. In real space, these two worlds have very different conceptions of the Commons.

Intellectual property in real space embraces the idea of the Commons quite fundamentally. Copyright terms are limited; fair use is rich; ideas cannot be copyrighted.<sup>19</sup> All these combine to create a world where intellectual property becomes part of a cultural commons. The frictions of real space law make it very hard to perfectly control the development and use of this real space Commons, so that I might have to buy the book in real space. But after I have bought the book, my use of the book—my use of its ideas, my criticism of the book, my development of ideas—all these are mine, because the intellectual property law, ineffectively enforced as it is in real space, in effect puts those ideas and that expression into the Commons.

Broadcasting, in real space, rejects this idea of the Commons. Except for weird public access channels, individuals in real space have no access to television broadcasting resources. Even if you buy the equipment, you cannot start televising the activities in your living room unless you have the permission of a governmental agency—the FCC. Or increasingly, unless you have purchased the right to broadcast at an auction sponsored by the FCC.

Certain necessities in real space makes this so. It would be too hard to perfectly control intellectual property in real space. The

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19. See generally, 3 MELVILLE B NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 16.01 [A] (1998). "Copyright does not protect ideas, but only the expression of ideas." *Id.*

frictions of real space guarantee this. And it would be too difficult to imagine a Commons in broadcasting in real space. Signals would conflict, chaos would reign—and so the mix of Commons in broadcasting would mean the destruction of broadcasting. In both contexts, this mix between the Commons and the technology seems destined, because nature made it that way.

But this mix between the Commons in broadcasting, and the Commons in intellectual property, is not fixed in cyberspace. Indeed, we are increasingly beginning to see the development of Code that will make it possible to perfectly control the use of intellectual property in cyberspace. Researchers, such as Mark Stefik<sup>20</sup> in Xerox Palo Alto Research Center (“PARC”), are developing technologies that will make it possible for an owner of intellectual property to sell whatever bundle of rights he or she wishes to sell, and to control perfectly the use of that intellectual property to ensure that the rights sold are consistent with that sale.<sup>21</sup> Want to buy the right to read a book once, that is one price. To read it a number of times, that is a second price. To excerpt material and pass it on, that is a third price. To make copies of sections, that is a fourth price. And these technologies—what Stefik calls “trusted systems,”<sup>22</sup> are being supplemented with an absurdly naïve race in contract law to find ways to allow owners of intellectual property to add further rights to their collection through the use of shrink-

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20. Mark Stefik is the Principal Scientist at the Xerox Palo Alto Research Center Park (“PARK”). For several years he taught a course on knowledge systems at Stanford University. His textbook from that course, *Introduction to Knowledge Systems*, was published in 1995 by Morgan Kaufmann. His book *Internet Dreams* was published by MIT Press in 1996. See Mark Stefik, *Shifting the Possible: How Digital Property Rights Challenge us to Rethink Digital Publishing*, 12 Berkeley Tech. L.J. 138 (1997).

21. See *id.* at 139.

22. See *id.* Mr. Stefik defines “trusted system” as:

[A] system that can be relied on to follow certain rules. In the context of digital works, a trusted system follows rules governing the terms, conditions and fees for using digital works. Suppose that you have a digital work stored on a trusted system, and you do not have a right to copy the work. Then, if you ask the trusted system to make a copy, it simply will not do it. Instead, it will give you an error message. If you do have a right to copy and, for example, exercising the right requires paying a fee and certification that you are over [eighteen] years old, then the trusted system would first make sure that the conditions are satisfied. Only then would it make the copy.

*Id.*

wrap licenses. The Code, and the law, then, is moving to a place where the owner gets to control the use of intellectual property perfectly.

Now this change, taken to an extreme, would essentially destroy the Commons in intellectual property. Copyright would not expire, IP would not fall into the public domain, fair use would not be guaranteed, because the Code could essentially eliminate it. The world of IP would move into a world of perfect property. *Lex Informatica* would construct intellectual property without the Commons that exists for intellectual property right now in real space.

Meanwhile, a very different change is happening in the context of broadcasting. Broadcasting rights in the United States are, in essence, controlled just as they were controlled in 1927. In 1927 Congress passed the Radio Act.<sup>23</sup> The Radio Act gave the government the right to allocate spectrum to broadcasters.<sup>24</sup> This initial allocation was by licensing—licensing both equipment and its use, so, in effect, licensing spectrum. This licensing was to be under a public interest standard, and it was this public interest standard that attracted the most vicious criticism. There was no need to allocate spectrum using licenses economists such as Coase argued. It would be much more efficient simply to auction licenses.<sup>25</sup> By “propertizing” the radio waves, we could assure that this property was devoted to its highest and best use. And no governmental agency would be hanging around waiting to revoke someone’s license because they had angered some bureaucrat.

But the technology of broadcasting has not stood still since 1927, even if the technology of government regulation has essentially stood still. Instead, there has been an extraordinary change—technologists will say “in degree”; but, as a lawyer let me say a change “in kind,” in the available technologies of broadcasting.

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23. Radio Act of 1927, Pub. L. No. 69-632, 44 Stat. 1162, *repealed by* Communications Act of 1934, Pub. L. No. 73-416, 48 Stat. 1064 (1934).

24. *See id.*

25. *See* Ronald Coase, *The Federal Communications Commission*, 2 J.L. & ECON 1 (1959) (generally discussing the rise of the FCC and the feasibility of auctioning licenses as a more efficient means of distribution).

This is the emergence of technologies such as spread spectrum.<sup>26</sup> With spread spectrum technologies, spectrum would not need to be allocated, in the sense of giving one person an exclusive right to the detriment of all others. With spread spectrum, broad swaths of the radio spectrum could be available for any to use, so long as they were using an approved broadcasting device. Spectrum would become a Commons, and its use would be limited to those who had the proper, or licensed, equipment.

Now, the details of this technology are complicated. And fortunately, I do not have enough time to sketch them, because they are even too complicated for me. But the important thing to see is how this technology enables this Commons.

Compare transportation: when you have railroads, it makes sense to allocate the right to use a bit of railroad track at a given time. A centralized coordinating system is, in a sense necessary. And no doubt one might improve on that coordination by selling or auctioning the right to a certain track at certain times.

But in a world of highways or sidewalks or parks, it makes no sense at all to construct a governmental agency to allocate the right to use the roads. The government might well inspect cars, to make sure they are safe and do not pose a risk to others. But beyond inspecting equipment, the government has no business controlling access. Once the roads are open, anyone should be allowed to use them to go wherever they want to go today.

Spectrum then would be just like our use of cars today. Just as with the Internet today, anyone, in essence, could become a broadcaster, because the system would coordinate this broadcasting. Allocation decisions would get coded into the *Lex* of transmitters. Smart transmitters would then replace the FCC's allocation.

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26. See *Engineering and Technology Action Commission Amends Rules Regarding Spread Spectrum Transmitters*, 97 FCC REP. 5 (1997), available in 1997 FCC LEXIS 1734. Spread spectrum communications systems use special modulation techniques that spread the energy of the signal being transmitted over a very wide bandwidth. See *id.* The information to be conveyed is modulated onto a carrier frequency by a conventional technique such as AM, FM or digital, and the bandwidth of the signal is deliberately widened by means of a spreading function. See *id.* Such spreading reduces the power density of the signal at any frequency within the transmitted bandwidth, thereby reducing the probability of causing interference to other signals occupying the same spectrum. See *id.*

Thus, in the one case, intellectual property—the emerging Code is undermining the Commons in IP. In the other case, broadcasting—the emerging Code is making a Commons possible. Code then seems neutral between the Commons and private property. Code could enable either.

But the lesson we need to see is that our tradition is not neutral. We may not have had the opportunity before to architect away the Commons fully in the context of intellectual property. We might now, for the first time, have that chance. But it is not the case that our tradition supported the commons merely because it was necessary. Indeed, I suggest that the First Amendment expresses a very strong bias on this question. Between an architecture of speech that allocates the right to speak to those who hold license, and an architecture of speech that allocates the right to speak to anyone, our tradition favors anyone. And between an architecture of intellectual property that gives holders of IP a perpetual right to control their expression, and an architecture of IP that gives holders an exclusive right “for a limited time,” our tradition favors a limited time. In the context of speech, in a world where we can select among the architectures of speech, the values of universality and equality demand the preservation of a Commons. In the context of IP, we give property rights to create sufficient incentives so people will produce. But once those incentives are created, what they produce becomes part of the Commons. And in the context of broadcasting, we give licenses only where necessity demands. When that necessity abates, we should return the right to speak to the world the framers knew—where just about anyone could become a publisher, and express whatever views they wished. In neither context is it our tradition to give over complete control to another. In both contexts, it is our tradition to leave as much as possible within the Commons.

Those are the ideas in the context of free speech that this convergence here will lead us to make a choice about the extent to which the commons will continue to be supported. I promised a hint about antitrust.

It seems to me that the same question gets raised in the context of antitrust in cyberspace. Again, the point is not that private property is theft. The point is not an extreme, that we can have

only the Commons in cyberspace. The point instead is a balance that is to be struck between the space in cyberspace that functions as the streets in real space do, and the space in cyberspace that functions as private property does. A balance between the open and closed, between the parks and the backyards, between the streets and driveways. The balance is between one part of the Commons held openly and publicly, and another held privately. And the challenge for antitrust law is to imagine an analog to these real-space challenges. When the Operating System (“OS”) defines our world, as Reidenberg reminds us that it does,<sup>27</sup> what are the constraints of the Commons that should operate with that OS?

These questions demand an answer, but as befits a comment on the Commons, let me end with an argument about why we seem so uniquely disabled from providing an answer. These choices about a balance between private and Commons requires a choice. The invisible hand will not make that choice. The invisible hand will take us to one solution or another. It seems to me more likely to take us to a solution that rejects the tradition of the Commons. But the world where the Commons is an option is a world where we should choose which option we want. An IP that preserves the space for the Commons, broadcasting that preserves a space for the Commons, or a world that eliminates the Commons. We have a tradition that tilts us one way, but at least we should make a choice.

But though collective judgment here is needed, we have become peculiarly unable to make a collective choice. We shun the idea of government doing anything about this. We embrace the idea of privatizing this problem to make it go away.

At a conference I was at in the former Soviet Republic of Georgia, sponsored by some idealistic agency of Western democracy, an Irish lawyer was explaining to the Georgians what is so great about a principle of judicial review—the idea that an act of parliament can be struck down by the court. Said the lawyer: “this is just wonderful, the system of judicial review. Every time an act of the parliament is struck down, the people align themselves with the court and against the parliament.” A friend of mine, a democ-

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27. See Reidenberg, *Lex Informatica*, *supra* note 13, at 578.

rat Georgian, was puzzled by this description, and so he asked: “now, why is it in a democracy that the people naturally align themselves with the non-democratic institution, and they are repulsed by the actions of the democratic institution?” You just do not understand democracy, said the Irish lawyer in response. Democracy for us is not to trust the acts of our democratically elected representatives.

Now, we are like the Irish, though maybe worse, because I do not think we have some deep faith in our court. But we are like the Irish in that we, too, indulge this self-indulgent “anti-governmentalism.” We have lost the ideal that there is a role for government to play here. Especially we—who spend too much of our time using electrons to interact; we who still stand amused at the potential of this new world; especially we, who cannot remember a time when there was not an underbelly to every story about a hero. We are the children of David Lynch, who cannot help but believe that just underneath the surface of this beautiful and pristine world there is simply decay. We listen to the promises of our governors no differently than the Soviets listened to the promises of their governors. We, like the Soviets, have heard it all before. “Hope” for us is not a place. “Hope” was a television commercial.

This, I want to argue, is a pathology. When government steps aside, it is not as if nothing takes its place. When governments disappear, it is not as if paradise prevails. It is not as if private interests have no interests, as if private interests do not have ends that they will pursue. To push the anti-government button is not to teleport us to Eden. When the interests of governments are gone, other interests take their place. Do we know what those interests are? And are we so certain they are better?

As we cower, ostrich-like, to avoid making choices, this convergence is making the choices for us. For the problems of convergence are not technological. The technicians will give us anything we want. But the problems of convergence are political—that we live in an era where even to say there is a role for government, or a role for collective choice about what the future in country will be, is to open yourself to ridicule.

And so the ridiculous will learn to be silent. And the technicians will learn to supply what the invisible hand wants. And we



1999]

*COMMONS AND CODE*

419

will watch, or at least some of us will watch, as this tradition of our liberal past—this ideal of a Commons where we need not live Oliver Twist-like, ever begging the powerful for the permission to access to our culture and its tradition—will pass into the past and it will be no part of this future that cyberspace will be. That is the fear that convergence presents, that we no longer have the power to make the choice about whether this world and its values will be carried into that world, and define its values, as well.